**DISPOZITIVE SI APLICATII MOBILE**

1. CUM SETAM UN SPINNER?

Spinner spnSpecializare = findViewById(R.id.*spnSpecializare*);  
String[] specializari = {"Statistica", "Informatica", "Cibernetica"};  
ArrayAdapter<String> spnAdapter = new ArrayAdapter<>(getApplicationContext(), androidx.appcompat.R.layout.*support\_simple\_spinner\_dropdown\_item*, specializari);  
spnSpecializare.setAdapter(spnAdapter);

1. CUM TRANSMITEM UN OBIECT INTR-UN LISTVIEW?

* IN PRIMUL RAND, NE ASIGURAM CA AVEM CLASA SERIALIZABILA (IMPLEMENTS SERIALIZABLE)
* IN CLASA DE ADAUGARE OBIECT, LA CLICK PE BUTONUL DE SALVARE AVEM:
* btnSalvare.setOnClickListener(view -> {  
   String nume = etNume.getText().toString();  
   float medie = Float.*parseFloat*(String.*valueOf*(etMedie.getText()));  
   String specializare = spnSpecializare.getSelectedItem().toString();  
    
   Student student = new Student(nume,medie,specializare);  
   Intent intent = getIntent();  
   intent.putExtra("studentFromIntent", student);  
   setResult(*RESULT\_OK*, intent);  
   finish();  
  });
* IN MAIN ACTIVITY AVEM DE INITIALIZAT:
* private ListView lvStudenti;  
  private List<Student> studenti = new ArrayList<>();  
    
  private ActivityResultLauncher<Intent> launcher;
* DUPA CARE IN INTERIORUL ONCREATE AVEM (NU UITAM DE LAUNCHER.LAUNCH(INTENT)):
* lvStudenti = findViewById(R.id.*lvStudenti*);  
  launcher = registerForActivityResult(new ActivityResultContracts.StartActivityForResult(), result -> {  
   Intent intent = result.getData();  
   Student student = (Student) intent.getSerializableExtra("studentFromIntent");  
   if(student != null) {  
   studenti.add(student);  
   //ArrayAdapter<Student> adapter = new ArrayAdapter<>(getApplicationContext(), androidx.appcompat.R.layout.support\_simple\_spinner\_dropdown\_item, studenti);  
   StudentAdapter adapter = new StudentAdapter(getApplicationContext(), R.layout.*view\_studenti*, studenti, getLayoutInflater());  
   lvStudenti.setAdapter(adapter);  
   }  
  });
* DACA AVEM CUSTOM ADAPTER, ATUNCI VA TREBUI SA REALIZAM CLASA SI LAYOUT VIEW-UL:
* private Context context;  
  private int layoutId;  
  private List<Student> studenti;  
  private LayoutInflater layoutInflater;  
    
  public StudentAdapter(@NonNull Context context, int layoutId, List<Student> studenti, LayoutInflater layoutInflater) {  
   super(context, layoutId, studenti);  
   this.context = context;  
   this.layoutId = layoutId;  
   this.studenti = studenti;  
   this.layoutInflater = layoutInflater;  
  }  
    
  @NonNull  
  @Override  
  public View getView(int position, @Nullable View convertView, @NonNull ViewGroup parent) {  
   View view = layoutInflater.inflate(layoutId,parent,false);  
   Student student = studenti.get(position);  
   TextView tvNume = view.findViewById(R.id.*tvNume*);  
   TextView tvMedie = view.findViewById(R.id.*tvMedie*);  
   TextView tvSpecializare = view.findViewById(R.id.*tvSpecializare*);  
   tvNume.setText(student.getNume());  
   tvMedie.setText(String.*valueOf*(student.getMedie()));  
   tvSpecializare.setText(student.getSpecializare());  
     
   return view;  
  }

1. CUM REALIZAM UN MENIU?

* SA MERGEM IN VALUES SI SA STERGEM DIN THEMES.XML, NOACTIONBAR
* APOI, TREBUIE SA CREAM UN LAYOUT DE TIP MENU (CLICK DREAPTA PE RES), IAR IN XML SA ADAUGAM UN ITEM CU ID SI TITLE
* DUPA CARE, IN MAIN ACTIVITY, OVERRIDE LA METODELE:
* @Override  
  public boolean onCreateOptionsMenu(Menu menu) {  
   getMenuInflater().inflate(R.menu.*meniu*, menu);  
   return true;  
  }  
    
  @Override  
  public boolean onOptionsItemSelected(@NonNull MenuItem item) {  
   if(item.getItemId() == R.id.*Optiune*) {  
   Intent intent = new Intent(getApplicationContext(), AdaugareMelodie.class);  
   launcher.launch(intent);  
   return true;  
   }  
   return false;  
  }

1. CUM EDITAM UN OBIECT DINTR-UN LISTVIEW?

* IN PRIMUL RAND, MERGEM IN ACTIVITATEA DE ADAUGARE OBIECTE, IN CARE DECLARAM UN INTENT INAINTE DE CLICK PE BUTON
* VOM CREA O VARIABILA DE TIP BOOLEAN NUMITA ISEDITING DEFAULT FALSE
* Intent editIntent = getIntent();  
  if(editIntent.hasExtra("edit")) {  
   isEditing = true;  
   Melodie melodie = (Melodie) editIntent.getSerializableExtra("edit");  
    
   etNume.setText(melodie.getNume().toString());  
   etDurata.setText(String.*valueOf*(melodie.getDurata()));  
   etData.setText(new SimpleDateFormat("dd.MM.yyyy").format(melodie.getPublicare()));  
   for(int i=0;i<spnGen.getCount();i++) {  
   if(melodie.getNume().equals(spnAdapter.getItem(i))) {  
   spnGen.setSelection(i);  
   }  
   }  
   switch (melodie.getFeedback()) {  
   case "Like": {  
   rgFeedback.check(R.id.*rbLike*);  
   break;  
   }  
   case "Dislike":  
   {  
   rgFeedback.check(R.id.*rbDislike*);  
   break;  
   }  
   }  
    
  }
* DUPA CARE, ACTUALIZAM IN BUTON:
* Intent intent = getIntent();  
  if(isEditing) {  
   intent.putExtra("edit", melodie);  
   isEditing = false;  
  } else {  
   intent.putExtra("adaugareMelodie", melodie);  
  }  
  setResult(*RESULT\_OK*, intent);  
  finish();
* APOI, MERGEM IN MAIN-ACTIVITY SI VOM INITIALIZA O VARIABILA:
* private int selectedPosition;
* DUPA CARE, PUNEM CLICK PE LISTA:
* lvMelodii.setOnItemClickListener((adapterView, view, position, l) -> {  
   selectedPosition = position;  
   Intent intent = new Intent(getApplicationContext(), AdaugareMelodie.class);  
   intent.putExtra("edit", melodii.get(position));  
   launcher.launch(intent);  
  });

-IAR APOI, ACTUALIZAM IN LAUNCHER URMATOARELE:

* launcher = registerForActivityResult(new ActivityResultContracts.StartActivityForResult(), result -> {  
   if(result.getData().hasExtra("adaugareMelodie")) {  
   Intent intent = result.getData();  
   Melodie melodie = (Melodie) intent.getSerializableExtra("adaugareMelodie");  
   if (melodie != null) {  
   melodii.add(melodie);  
   //ArrayAdapter<Melodie> lvAdapter = new ArrayAdapter<>(getApplicationContext(), androidx.appcompat.R.layout.support\_simple\_spinner\_dropdown\_item,melodii);  
   MelodieAdapter lvAdapter = new MelodieAdapter(getApplicationContext(), R.layout.*view\_melodii*, melodii, getLayoutInflater());  
    
    
   lvMelodii.setAdapter(lvAdapter);  
   }  
   } else if(result.getData().hasExtra("edit")) {  
   Intent intent = result.getData();  
   Melodie melodie = (Melodie) intent.getSerializableExtra("edit");  
   if(melodie!=null) {  
   Melodie melodieActualizata = melodii.get(selectedPosition);  
   melodieActualizata.setNume(melodie.getNume());  
   melodieActualizata.setDurata(melodie.getDurata());  
   melodieActualizata.setPublicare(melodie.getPublicare());  
   melodieActualizata.setGen(melodie.getGen());  
   melodieActualizata.setFeedback(melodie.getFeedback());  
   MelodieAdapter adapter = (MelodieAdapter) lvMelodii.getAdapter();  
   adapter.notifyDataSetChanged();  
   }  
   }  
   });  
  }

1. CUM FACEM SHARED PREFERENCES?

* IN PRIMUL RAND, INITIALIZAM DIN MAIN ACTIVITY:
* SharedPreferences sharedPreferences = getSharedPreferences(getString(R.string.LOCAL), MODE\_PRIVATE);
* SharedPreferences.Editor editor = sharedPreferences.edit();
* editor.putString("token", "123Token");
* editor.apply();
* APOI, MERGEM IN ACTIVITATEA IN CARE SE VREA AFISAT MESAJUL:
* SharedPreferences sharedPreferences = getSharedPreferences(getString(R.string.LOCAL), MODE\_PRIVATE);
* String token = sharedPreferences.getString("token", "Default");
* Toast.makeText(this, token, Toast.LENGTH\_SHORT).show();